

United States
Department of
Agriculture

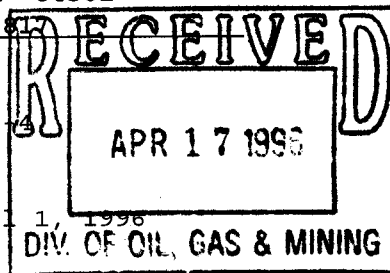
Forest
Service

Manti-La Sal
National Forest

599 West Price River Dr.
Price, Utah 84501
(801) 637-2817

File Code: 2820-4

Date: April 1, 1996



0015

Utah Division of Oil, Gas and Mining
ATTN: Ms. Pamela Grubaugh-Littig
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

RE: Installation of Culvert in Crandall Creek to Expand Surface Facilities,
Crandall Canyon Mine, Genwal Resources, Inc., ACT/015/032-961, Folder #2, Emery
County, Utah

#2

Dear Pam,

We have reviewed Genwal's submittal for their proposed culvert installation, and have the following concerns which must be addressed before we concur with the proposal:

Chapter 2 - Soils

Page 2-7, first paragraph

We are concerned with the potential for sediment from the proposed surface area to be transported into Crandall Creek on the Forest. Specify how the topsoil will be stabilized.

Addendum to Appendix 2-3B, Section 3.0

This section begins with a statement that there are no wetlands along the proposed culvert route. However, the Biology chapter has a description of a riparian vegetation community in the proposed project area. A Forest Service inventory also shows the area has a narrow strip of wetland along the stream. The proposed project area is the transition from a CR2 riparian community downstream to a CR3 type upstream.

Chapter 3 - Biology

Page 3-4, last paragraph

The description of the elk is from 1980. Describe the current status.

Page 3-5, last paragraph of Section 3.22.1

Beaver dams are rarely barriers to fish passage. Cutthroat trout spawn during high water periods in the spring when they can swim over the dam.

Page 3-7, last paragraph

The list of species potentially present should include the spotted bat, three-toed woodpecker, and Colorado cutthroat trout. The Bonneville cutthroat trout and spotted frog should be deleted from the list.

Page 3-14, first paragraph

The Division of Wildlife Resources letter in Appendix 3-2 does not lead to the conclusion that "no upstream fisheries habitat will be negatively effected". The 1995 surveys (Appendix 3-2) were taken in late June and August and do not give any kind of picture of the function of the higher reaches of the creek for this cutthroat population. This culvert would cause a significant loss of habitat and will affect the populations ability to access headwater areas (Young, M. K., Resident trout and movement: consequences of a new paradigm, Fish Habitat Relationships Currents, U.S. Forest Service publication).

Page 3-15, first paragraph

None of those mitigations compensate for the loss of cutthroat spawning habitat in Crandall Creek. (Currently Genwal is working with the Forest Service and the Utah Division of Wildlife Resources to develop appropriate mitigations.)

Page 3-21, first and second paragraphs

The riparian community type has been classified as Salix boothii/Equisetum arvense with a mix of mesic forbs. The site should be reclaimed to reestablish this community.

Chapters 4 and 7 - Air and Water Quality

The Forest Service is concerned that coal dust from the open storage pile may migrate beyond the containment area and impact air and water quality on the Forest. This must be discussed in Chapters 4 and 7. It has been our experience that open coal piles tend to expand beyond approved design limits with time. Genwal must provide physical barriers to define the approved perimeter of the coal storage area and specifically discuss how coal would be prevented from spilling onto the Crandall Canyon road.

Chapter 5 - Engineering

Page 5-15, fifth paragraph

Genwal commits to mine no closer than 500 feet to the Joes Valley Fault. In another portion of the plan, they state they will stay 1,000 feet from the fault. The distance from the fault is based on an angle-of-draw, which varies with overburden, and is thus not a constant distance. Both these statements must be corrected to conform

to Forest Service Stipulation #20, which is a part of Genwal's lease, which states that "mining that would cause subsidence will not be permitted within a zone along the Joes Valley Fault determined by projecting a 22 degree angle-of-draw (from vertical) eastward from the surface expression of the Joes Valley Fault, down to the top of the coal seam to be mined."

Page 5-20, design criteria 5

There is a statement that no mining will be done within limits that might impact the Joes Valley Fault. They should define these limits.

Page 5-22, section 5.25.1.5

If there is ground lowering, tensional fractures would also be expected around the margins of the subsided area.

Page 5-32, second paragraph

On the fifth line, remove the word "primarily" so that it reads "was preserved for recreational/forest service parking".

The Forest Service is concerned with sediment input to Crandall Creek. The Forest Service consented to the use of the sediment pond for snow storage only to keep snow and road traction material (sand) from being pushed off the sides of the road which caused the sand to wash into Crandall Creek. Genwal must include computations to show that the sediment pond is adequate in size to hold both snow and runoff and still function effectively as a sediment pond, or find another place to pile the snow that will report to the sediment pond. They must also include a discussion of where the material from the sediment pond would be dried before disposal.

Page 5-33, second full paragraph

The wastes described are solid wastes, as defined by the Resource Conservation and Recovery Act (RCRA), and must be disposed of in a RCRA-permitted facility. They can not be left in the mine.

Page 5-33, last paragraph

Oil and gas spills must be cleaned-up immediately. Contaminated soil must be removed from the forest to a permitted facility.

Page 5-45, section 5.42.6

They need to state that the entire asphalt road surface will be removed and disposed of at a RCRA-permitted solid waste facility.

Page 5-45, section 5.42.7

There is no mention of clean-up of the spilled coal from the current loadout. When the new loadout is built, the previous site must be cleaned thoroughly.

Page 5-47, third paragraph

These materials would be classed as solid wastes under RCRA and must be taken to a licensed disposal facility. They can not be disposed of in the mine.

Appendix 5-20

This section needs a description of the type of fill material to be used and how it would be compacted. To minimize the spread of noxious weeds on the forest, any fill material transported on Forest Development Roads must be from a site free of noxious weeds.

All asphalt must be removed from the forest and taken to a licensed disposal facility.

Chapter 7 - Hydrology

Page 7-15, first paragraph

A visual estimate of flow is not sufficient. Flow can easily and accurately be measured with a bucket and a stopwatch.

Page 7-15, last sentence

There is no documentation of how the location of the regional aquifer was defined. Was it from in-mine drill holes or monitoring wells from the surface?

Page 7-16, third paragraph

This paragraph contradicts the generally accepted theory that the North Horn Formation is an aquiclude, not a recharge unit. Typically in the Wasatch Plateau, the North Horn Formation actually prohibits downward movement of ground water due to the high shale content and presence of swelling clays. The North Horn Formation generally has the most spring occurrences due to shales acting as perching beds and forming perched water-bearing zones that issue water to springs where saturated zones intercept incised canyons.

Page 7-18, fourth paragraph

The statement that there is no direct communication between the North Horn Formation and the Star Point regional aquifer may not be correct. With the presence of fractures and joint systems common in the Wasatch Plateau, it is possible that hydraulic connection exists in localized areas between units.

Page 7-20, fourth paragraph

The method for determining the potentiometric surface is incorrect. Three water monitoring wells are not adequate data to contour the potentiometric surface. A three-point problem is more acceptable to show ground water flow direction.

Additionally, the following general concerns must also be addressed:

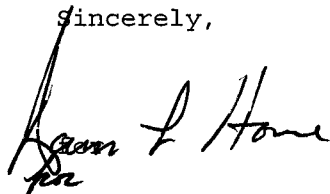
Expansion of the surface area for development at the pad area provides sufficient area to return the travelway of Forest Development Road 50248, the Crandall Canyon Road through the mine site, to double lane. The travelway was infringed upon during construction of the upper pad area (shop, power center, warehouse, office, dumpster) rather than extend the roadway into the stream channel. Now that the stream channel impacts can no longer be avoided, full double lane width of the roadway must be restored. The travelway was also infringed upon during installation of the existing platform scales because of a design mistake that would not allow adequate clearance of coal transport vehicles without lengthening the off-ramp into the travelway of the Crandall Canyon Road. Now that the platform scales are being relocated, there is no basis for lane width restrictions. Coal transport vehicles are bunching-up at the mine site and onto FDR 50248 immediately below the mine site. Increased production will likely increase truck congestion at the loadout. In order to reduce congestion, improve safety through the mine site, and allow uninfringed public access to the trailhead parking and turnaround area, a public right-of-way (double lane) must be granted to the Forest Service (U.S. Government) to protect the public's interest.

Concrete energy dissipator design data are presented for the outlet of the culvert, but a gabion energy dissipator has been substituted. Genwal must provide design data to demonstrate that a gabion energy dissipator can resist the design forces. Channel slopes of $\pm 7\%$ were used for velocity calculations through the culvert. The overall channel slope within the canyon is also $\pm 7\%$. Why was the natural channel slope selected as 3.9% as a localized situation without a specific channel profile?

The Forest Service is concerned that the sand fill proposed for placement below the culvert will be washed into lower sections of Crandall Creek on the Forest. The function of the proposed sand fill below the culvert is not adequately described. Is the proposed sand backfill required to capture leakage from the culvert or infiltration from springs in the channel area? A description of how the sand backfill would be retained and migration of fines prevented must be added. Describe compaction to prevent differential settlement of the culvert and separation at joints. Describe how water would be collected/monitored and returned to the stream.

Please contact Dale Harber at (801) 637-2817 if you have any questions.

Sincerely,



JANETTE S. KAISER
Forest Supervisor